

THE GARDEN STATE

TASTE TREATS

Berry Patches, Bogs and Arbors Contribute to Annual \$7,000,000 Income From Small Fruit in New Jersey, Which Stands First in Blueberries, Third in Cranberries and Tenth in Strawberries

By JOHN T. CUNNINGHAM

Aerial view of Whitesbog, where Joseph White built his huge cranberry business and where his daughter, Elizabeth C. White, developed world's first cultivated blueberries. White patches are blueberries; dark areas are cranberry bogs; gray outlines flood ponds.

BELOW: At another Burlington plantation, worker empties scoop during harvest at Haines Brothers' bog in Hog Wallow, Chatsworth.

TRUE agricultural aristocrats are the small fruits—the tangy scarlet cranberries, the sugar-sweet blueberries, the rich red strawberries, the tasty purple grapes. These are luxuries to excite the jaded appetite, taste treats to make the dining table commoner a gustatory king for the moment.

If small fruits are the royalty of the farm, then New Jersey is a kingdom—shaky in spots, admittedly, but still rich in the berry heritage which long ago helped earn New Jersey its "Garden State" name. Heritage puts no gold in a man's pocket, as any materialist knows, but from the cash-in-pocket standpoint so-called "small" fruits today are worth some \$7,000,000 every year in New Jersey.

No area in all the world exceeds New Jersey in the production of blueberries, and only two states grow more cranberries. New Jersey strawberries rank 10th nationally in volume, but more vital than mere volume is the background of Garden State strawberry growing which through the years has influenced much of the country's strawberry practice.

Small fruits add up to huge portions of luxury eating in New Jersey. Annually the state harvests more than

13,000,000 pints of blueberries, 5,000,000 quarts of strawberries, 10,000,000 pounds of cranberries, 3,500,000 pounds of grapes—plus thousands of quarts of blackberries, raspberries and other small fruit. That's many a juicy pie, a lot of jam on the shelves, a lot of sauce for the turkey spread.

AHEAD may be even bigger things. For every five acres already producing blueberries, there are three more acres nearing production—and more are being planted every year. Recent developments in the cranberry bogs bid fair to boost the state's cranberry production. New varieties of strawberries and grapes may add to New Jersey's patches and arbors.

Regardless of what the future holds, New Jersey has an unshakable position in the story of small fruit culture. Behind today's cranberry sauce and blueberry pie and strawberry preserves and grape wine there is a solid background of strong New Jersey overtones.

And such interesting people set against the background! People like Elizabeth C. White, who developed the cultivated blueberry in Burlington County; Seth Boyden, who grew straw-

This is the eleventh in a series of articles on New Jersey's highly diversified agriculture, vigorous and growing despite the constant inroads of industrial and residential development. Next week: Nurseries and Floriculture.



Strawberries, no longer baseball-size as in Seth Boyden's time, still mean \$1,500,000 worth of sweetness to New Jersey farmers.

berries as big as baseballs in Essex County; "Old Peg Leg" John Webb, the Ocean County school teacher who pioneered in cranberry culture, and Dr. Thomas B. Welch, the Vineland dentist who made the world's first grape juice because he opposed the use of wine in church sacraments.

NOW the counties of South Jersey—Atlantic, Burlington, Cumberland, Ocean and Monmouth—encompass nearly all the small fruit output of importance. It hasn't always been that way. In the beginning, Bergen County topped the state and possibly even the nation in the production of strawberries. Later Essex County drew national attention to its berry patches.

Strawberries grabbed first small fruit prominence in New Jersey, and held that prominence throughout the 19th century, despite the fact that early colonists learned in the 17th century about Indian cranberry sauce ("sasemineach," as all good little Indians say), and despite the fact that as early as 1789 the New Jersey Legislature protected the scarlet swamp berry with a 10-shilling fine for picking before Oct. 10.

The tart cranberry didn't appeal to all tastes, but the sugar-sweet strawberry did; hence, by 1800 New York residents welcomed the coming of June and the arrival of Bergen County strawberries. The berries grew wild in the broad fields of Bergen and pickers carefully placed the tender fruit in small hand-made splint baskets complete with handles. They strung the baskets along a pole and walked through Old Gotham peddling their wares.

Two decades later Bergen County strawberry culture had become important. Bergen farmers packed their cultivated Haut Boy strawberries in hampers in the 1820s, lugged them overland to the docks at Piermont, N.Y., and then rode sloops into New York City ("twice weekly, wind and weather permitting"). Often it took two full days to make the trip to the big city and back.

AN UNSUNG farmer introduced the famed Scotch Runner variety at Hackensack in 1840 and the berry ran all over the county. At the same time

Andrew Hopper and Pascack invented a special 200-basket crate which answered berry pickers' prayers for a safe way to transport their easily bruised fruit.

Just before Civil War time, Pater-son's "Tri-Weekly Guardian" reported in 1856 that Bergen and Passaic counties had become "one large strawberry patch." In 1858, toll takers at a single gate on Bergen Turnpike took tolls from drivers of 1,100 berry wagons in the last week in June—wagons laden with 1,500,000 baskets of strawberries.

The Erie Railroad changed all, particularly as strawberry culture shifted heavily from Hackensack to north-western Bergen County. Mahwah, Ramsey and Allendale each gave the Erie two carloads of the ripe red berries every evening, Ridgewood added four or five. Empty Erie cars, painted a gleaming white, were spotted on sidings at noon and rolled filled with Bergen goodness for Jersey City and New York in the cool of the evening.

Bergen's strawberry importance continued through the 1890s, or until real estate edged in. Competition also edged in—from South Jersey, where growers in the Hammonton region daily sent five to seven carloads of berries to New York and Philadelphia in 1867; and especially from Essex County after the astounding Seth Boyden shifted his attention from patent leather and iron to strawberries.

MR. BOYDEN had done enough for a dozen lifetimes before he cast his lot with the royal strawberry. He developed America's first patent leather and its first malleable iron and had an unexcelled reputation as a mechanic and builder before he moved in 1855 to a tiny farm in Hilton (on the Irvington-Maplewood border line). Then 67 years old, Mr. Boyden took up strawberry culture.

Soon Mr. Boyden grew berries nine inches in circumference—the same size as a modern baseball. In 1868 he told friends that if he could live another 20 years he would grow flavorful berries as big as pineapples. Never did Mr. Boyden think of capitalizing on his successes; he gave away his plants, his advice and his time without ever seeking or expecting reward.



Vines yield meaty Concord grapes on Keyport farm of Harry S. Willey. Annual harvest in the Garden State is over 3,500,000 pounds.

Death overtook Mr. Boyden in 1870, leaving him some 18 years short of a pineapple-sized strawberry, but he left his legacy to Hilton in the form of a tremendous strawberry business. Men like Elias W. Durand, a faithful follower of Boyden, gained national reputations for their strawberries. Mr. Durand in his lifetime, became the nation's leading breeder of the berry of kings.

Hilton strawberries sold in New York City for as much as 10 cents apiece, at a time when ordinary strawberries brought less than 10 cents a quart. Choice berries were sold in china cups—one berry to a cup—for \$1 apiece. Delmonico's in New York bought Hilton strawberries for its exclusive restaurant clientele. No single area in the nation topped Hilton for almost 30 years between 1870 and 1900, particularly after Henry Jerolaman, "The Strawberry King," began buying up strawberry properties and improving them. But by 1900,

instead of heading to pineapple size, Hilton berries headed toward peanut size and by 1915 the fabulous Essex County strawberry era had died.

AS THE strawberry rash reddened and faded in various parts of the state, many a Burlington and Ocean man became bogged down in cranberry culture in about 1835. Benjamin Thomas of Burr's Mills in Burlington County is said to have been the first of a long line of New Jersey men to profit from cultivating the cranberry bogs.

Others followed quickly—the trio of Braddock brothers, S. H. Shreve, Joseph J. White, James A. Fenwick, and the Budd family, to mention a few, but for sheer colorfulness no cranberry grower before or since matched John Webb, the one-legged country school teacher who began moving wild cranberry plants from

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JERSEY BERRIES

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the swamps to his man-made bog in about 1943.

Mr. Webb—"Old Peg Leg John" they called him because of his wooden leg—won lasting credit by developing a brand new system of sorting cranberries. He stored his fruit in a loft, but his bad leg hindered his carrying the heavy berries back down. So Peg Leg John poured them on the steps and down they bounced. That is, the good berries bounced down; the rotten berries lodged on the stair treads. Not long after, D. T. Staniford of Ocean County used Peg Leg John's accidental more-ounce-to-the-bounce test in developing the first cranberry sorting machinery.

Mr. Webb gained renown for his cranberries; old sources relate that he picked up \$50 a barrel for his fruit when he sold them to ship captains to ward off scurvy on long sea voyages. Few early growers risked much capital in cranberries, nevertheless; it was too easy to lose everything in the wake of a sudden June frost or a forest fire sweeping over the pines in the crackling dryness of July or August.

THEN in 1855 two Medford merchants plunged deeply into a big cranberry bog and got a disheartening 62 cents a bushel for their plans. Oddly enough, such low prices didn't deter other planters and—more oddly—as more berries became available, the demand grew and prices went up. By 1865 cranberry growing had reached all the proportions of a craze, and when the 1866 crops brought as high as \$10 a bushel, the craze became a mania. Between 1875 and 1885 New Jersey production of cranberries increased ten-fold.

Prof. George H. Cook, state geologist, declared in 1869 that "already our fields supply more than half of all cranberries raised in the United States." He estimated the little scarlet fruit to be worth potentially millions of dollars. Sadly enough, New Jersey growers found they couldn't bring to market anywhere near what they harvested. Many a grower lost 75 per cent of his crop from rotting before it reached market—lodged on the top step, as John Webb would have said.

Late in the 19th century plant pathologists discovered and conquered the fungus disease at the root of the rot trouble, and New Jersey cranberry production rose from 7,600,000 quarts in 1900, to 12,000,000 quarts in 1910. Cranberry plantations eventually spread over nearly 11,000 acres in the Pine lands of South Jersey, through the region of the state's most picturesque names—from Ong's Hat to Double Trouble, from Mt. Misery to Friendship, from Penny Pot to Whitesbog.

AS THE years rolled on, Whitesbog became more and more a center of cranberry knowledge. There lived and worked Joseph J. White, whose book on "Cranberry Culture" became

the bible of American cranberry growers after its publication in 1885. Mr. White, and his father before him, had built up Whitesbog and other plantations in Burlington County—down along the Wading River on Rake Pond and in the bogs near New Lisbon.

Joseph White carefully developed the cranberry and at the same time he discussed with his young daughter, Elizabeth, his dream that swamp huckleberries might be cultivated too. Joseph White reasoned this way—the huckleberry ripened in July and early August, the cranberry in September and October. If both could be cultivated, the picking season would be extended in the boglands.

A few others felt the same way about the huckleberry. C. W. Idell, one of New Jersey's premier early fruit growers, told the New Jersey State Horticultural Society at its first annual meeting in 1876 that the huckleberry could and should be cultivated. But, he said half in regret, "God has distributed this little berry too freely over the state for us to appreciate its excellence and the possibility of improvement."

Actually, said Mr. Idell, the huckleberry was known only by "rude" and "vulgar" names—such as "hog berry," "swamp berry" and "dangleberry." He said the "swamp" berry offered good cultivated possibilities, with its tall bushes and berries "as large as a black cherry." The "cracker" he decried as too full of seeds (but the "cracker" is today the native "huckleberry").

MR. IDELL'S words didn't reach young Elizabeth White, only four years old in 1876, but as she paddled her tiny feet in the clear brown waters of the pine creeks she learned to love the Pines and to respect its people. That respect stood her in good stead years later when in 1910 she read a 100-page U.S. Department of Agriculture pamphlet on "Experiments in Blueberry Culture." That bulletin, by Dr. Frederick V. Coville, changed forever the life of 39-year-old Elizabeth White, and led the way to a new multi-million dollar fruit enterprise.

Miss White bought some experimental seedlings from Washington in 1910, but at the same time she traveled the Pine Barrens in a horse and buggy, seeking heavy producing specimens of the tall native "swamp" blueberry plants Idell had described in 1876. The Pine people led Miss White to fine plants; she, in gratitude, named her prize blueberry varieties for the "Pineys"—and the "Adams" for Jim Adams, who found the bush in Bear Hole near Chatsworth, and the "Rube" for Rube Leek (Elizabeth White realized that no blueberry should ever be called either "Rube" or "Lee.")

Miss White's first cultivated blueberries went to market in 1916, but it took 25 years more for the results of her work to be widespread. In 1930 only 121 acres of cultivated blue-



Blueberry picker and tray on T. H. Budd Farms at Pemberton, Burlington County. Jersey leads nation in cultivated blueberry production.

berries were grown in New Jersey, by 1940 that had risen to a mere 675, by 1950 to 2,600. Last year, when Elizabeth White died at the age of 82, New Jersey's 5,100 acres yielded \$3,450,000 worth of cultivated blueberries to their growers.

THE amazing rise of cultivated blueberries has coincided with the rapid decline of grape growing in New Jersey. It has taken about a full century for grapes to swing the full cycle, since the first full-scale growing of grapes in this state didn't take place until 1858. Then John Wild, a celebrated entomologist of his day, showed his German neighbors in Egg Harbor City that their Atlantic County soil was ideally suited for grapes.

That suited the Germans just fine, since they "abhorred whisky but loved wine." Soon the gravelly slopes became covered with arbors, and in 1867 Egg Harbor's H. T. Dewey & Sons began making their "Black Rose," said to be "well suited for medical use." But, it was Louis N. Renault, a Frenchman stranded in this country by the Franco-Prussian War in 1870, who established the most lasting winery. His Renault wines,

made in Egg Harbor, are still nationally known after 75 years.

Many wine spokesmen urged its manufacture from 1870 to 1890, declaring it to be a means of "driving out our abominable drinks of whisky, gin and other alcoholic mixtures." They urged the State Board of Agriculture to encourage grape growing for the vintners. One Vineland resident, Dr. Thomas B. Welch, saw sinfulness in such wine talk. He determined in 1869 to make a non-alcoholic drink to be used in church sacraments.

Dr. Welch and his 17-year-old son Charles, gathered several baskets of Concord grapes from the trellises of their porches. They cooked the grapes in their kitchen, filtered the juice into a dozen quart bottles and sealed them with cork and wax. Then the bottles were dipped into boiling water in line with Dr. Louis Pasteur's then-revolutionary ideas of pasteurization.

Although Dr. Welch scarcely influenced the wine business—in church or out—he did succeed in making the world's first processed fruit juice and his enterprise grew from the Vineland kitchen to become the world's largest producer of grape juice. As his business grew, disease



Cranberries ready for processing on South Jersey plantation. Annual yield of 10,000,000 pounds gives state third-place ranking.

struck New Jersey vines and the pickings of grapes declined. Finally the Welch family moved their company to western New York State, where grape growing started to flourish after 1900.

Grape growers didn't tear down their vines; in 1910 they produced a record 6,500,000 pounds of grapes—most of it destined for bottled fermentation. That year of 1910 marked the golden age of all small fruits in the state, as a matter of fact, since never before had the yields of the berry patches, vineyards and the bogs been so high. And never since has it been as high, either.

CRANBERRY pickers scooped 12,000,000 quarts of berries in 1910, strawberry growers filled 18,000,000 quart baskets the same year. The bramble fruits—blackberries, dewberries and raspberries—reached new highs. A man could well stand the thorns of the latter, because high prices came for the 1910 crops of 5,450,000 quarts of blackberries and dewberries and nearly 3,000,000 quarts of raspberries.

The rich years of the 1920's might have been expected to increase demands for the small aristocratic fruits, and, consequently, to have increased

New Jersey yields. People must have been getting their luxurious feeling from something other than berries, however—cranberry production declined to 3,600,000 quarts in 1930 (25 per cent of the 1910 total), strawberries fell to 6,000,000 quarts (one-third the 1910 production), and bramble fruits fell drastically, well along the decline which today sees blackberries and raspberries only moderately important.

Further diminishment was the strawberry's lot in the 1930s, before it finally leveled off in 1940 at about 3,500,000 to 4,000,000 quarts annually. But even as the strawberry acreage fell off in New Jersey, a Garden State variety helped save all the nation's strawberry culture from the ravages of red stele disease after that fungus struck in 1935.

J. Harold Clark, fruit specialist at New Jersey Experiment Station, set out to breed a variety resistant to red stele and by 1938 came up with Pathfinder—the first good hybrid strawberry able to ward off the red menace. Equally important, Clark used as one of his plant parents the Aberdeen, perfected in 1909 by William Kuhn of Keyport. As others throughout the land sought a variety resistant to red stele, they also used Kuhn's



Packing whole cranberries for market. Rutgers agricultural experimenters are working to increase state's per-acre production.

Aberdeen—and that Keyport plant gets the greatest credit for helping save American strawberries. Later Mr. Clark also developed other important varieties, including the widely used Sparkle.

TODAY the blueberry is the unparalleled king of the small fruit dynasty, as far as New Jersey is concerned. Elizabeth White's treks through the bogs 45 years ago have given the state a fruit industry whose annual farm income is close to \$3,500,000—or nearly half of all income from small fruit. More than 5,000 acres of blueberries now are harvested in Burlington, Atlantic and Ocean counties (in that order of importance). Another 3,000 acres are planted but not quite ready for picking.

Next, from the dollar standpoint, is the strawberry. No longer do strawberries attain the size of baseballs—and many a modern grower shakes his head in disbelief when hearing of Seth Boyden's king-sized fruit—but New Jersey strawberries retain a reputation for sweetness and firmness. Such reputation annually means more than \$2,000,000 to strawberry growers in Cumberland, Atlantic, Monmouth and Burlington counties.

The cranberry, now leveled off at some 7,000 acres of bogs in Burlington, Ocean and Cape May counties, is a puzzler. New Jersey ranks third nationally in cranberry production but nearly everyone concerned is fretful over the low yields of the Jersey bogs. The South Jersey growers get only 16 barrels per acre, compared with 27 per acre in Massachusetts and 54 barrels per acre in Wisconsin. Obviously more barrels per acre would increase the \$1,500,000 income now realized from cranberries annually.

NOW there is a theory that the diminishing number of bees in the pines (due to burning of underbrush, among other things) is the real reason

for low harvest. Rutgers agricultural experimenters are putting back bees to pollinate the cranberry blooms and they talk of possible yields of 100 barrels per acre. If this can be proved, and cranberry growers be convinced, the story of the berries and the bees may be one of the big agricultural sagas of the near future.

Still, cranberry growers are "like no other farmers. For one thing, many cranberry growers are sons of sons of sons of original bog owners. Cranberry-growing takes years to master and to understand. It takes years to build up a philosophy to help in years like 1954—when a frost came the night of June 19 and ruined the yield of hundreds of acres of cranberry bogs and when forest fires swept through the pinelands and ruined another 400 acres of berries. Cranberry growers must maintain huge reservoirs of water, not to fight forest fires, but to use in flooding their bogs when early summer frost and winter freezing threaten to ruin a crop. Such concerns aren't the lot of the ordinary farmer.

Grapes may have a future, too, on the market stand. Some state growers are experimenting with a new hybrid white grape, in appearance and flavor much like the familiar California grape—but a variety which will grow in New Jersey. Oddly enough, to anyone who cherishes the tanginess of the Concord grape, the Concord sells only moderately well in the market. Most eaters of fresh grapes go for the moderately flavored white grape, preferring the taste of the purple variety after it has had a chance to age somewhat in a winery.

Small fruits will always be much with us, with the help of the bees and the bogs and the good nearby markets because in America small fruits are for the tables of nearly all people. But small fruits continue to be agricultural aristocrats—and, since Miss Elizabeth White, in New Jersey berries are truly blue-blooded.